

REPORT ON MACHINERY.

NO. 13434

TUES 11 JUN 1895

Port of

Glasgow

Received at London Office 18

No. in Survey held at

Date, first Survey

Last Survey

18

Reg. Book.

on the

S.S. "Barcelona"

Supplementary Report I

Number of Visits

Tons

Gross

Net

Master

Built at

By whom built

When built

Engines made at

By whom made

when made

Boilers made at

Glasgow

By whom made

James & Jackson

when made

1895

Registered Horse Power

Owners

Port belonging to

Nom. Horse Power as per Section 28

ENGINES, &c.—

Description of Engines

No. of Cylinders

Diameter of Cylinders

Length of Stroke

Revolutions per minute

Diameter of Screw shaft

as per rule

Diameter of Tunnel shaft

as per rule

Diameter of Crank shaft journals

Diameter of Crank pin

Size of Crank webs

Diameter of screw

Pitch of screw

No. of blades

State whether moveable

Total surface

No. of Feed pumps

Diameter of ditto

Stroke

Can one be overhauled while the other is at work

No. of Bilge pumps

Diameter of ditto

Stroke

Can one be overhauled while the other is at work

No. of Donkey Engines

Sizes of Pumps

No. and size of Suctions connected to both Bilge and Donkey pumps

In Engine Room

In Holds, &c.

No. of bilge injections

sizes

Connected to condenser, or to circulating pump

Is a separate donkey suction fitted in Engine room & size

Are all the bilge suction pipes fitted with roses

Are the roses in Engine room always accessible

Are the sluices on Engine room bulkheads always accessible

Are all connections with the sea direct on the skin of the ship

Are they Valves or Cocks

Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates

Are the discharge pipes above or below the deep water line

Are they each fitted with a discharge valve always accessible on the plating of the vessel

Are the blow off cocks fitted with a spigot and brass covering plate

What pipes are carried through the bunkers

How are they protected

Are all pipes, cocks, valves, and pumps in connection with the machinery and all boiler mountings accessible at all times

Are the bilge suction pipes, cocks, and valves arranged so as to prevent any communication between the sea and the bilges

When were stern tube, propeller, screw shaft, and all connections examined in dry dock

Is the screw shaft tunnel watertight

Is it fitted with a watertight door

worked from

BOILERS, &c.—

(Letter for record 3)

Total Heating Surface of Boilers

2602 sq ft

No. and Description of Boilers

One Cylindrical return tubular

Working Pressure

160 lbs

Tested by hydraulic pressure to 320 lbs

Date of test

30 4 95

Can each boiler be worked separately

yes

Area of fire grate in each boiler

82 sq ft

No. and Description of safety valves to

each boiler

Two spring loaded

Area of each valve

8.29

Pressure to which they are adjusted

165 lbs

Are they fitted

with easing gear

yes

Smallest distance between boilers or uptakes and bunkers or woodwork

24"

Mean diameter of boilers

204"

Length

11' 0"

Material of shell plates

Steel

Thickness

1 1/32"

Description of riveting: circum. seams

lap 2K

long. seams

2 butt. 5 K.

Diameter of rivet holes in long. seams

1 3/8"

Pitch of rivets

9 1/2"

Lap of plates or width of butt straps

20 1/2"

Per centages of strength of longitudinal joint

rivets 87.0

plate 85.5

Working pressure of shell by rules

160 lbs

Size of manhole in shell

12 x 16"

Size of compensating ring

McNish

No. and Description of Furnaces in each boiler

Three corrugated

Material

Steel

Outside diameter

57"

Length of plain part

6' 11"

Thickness of plates

1 1/32"

Description of longitudinal joint

weld

No. of strengthening rings

carrying

Working pressure of furnace by the rules

160 lbs

Combustion chamber plates: Material

Steel

Thickness: Sides

9/16"

Back

9/16"

Top

9/16"

Bottom

3/32"

Pitch of stays to ditto: Sides

8 x 8 1/4"

Back

8 1/4"

Top

8 x 8 1/4"

If stays are fitted with nuts or riveted heads

Nuts

Working pressure by rules

160 lbs

160 lbs

160 lbs

160 lbs

Material of stays

Steel

Diameter at smallest part

1 1/8"

Area supported by each stay

72 sq in

Working pressure by rules

160 lbs

End plates in steam space:

Material

Steel

Thickness

1 1/8"

Pitch of stays

15 x 18 1/4"

How are stays secured

8 nuts

Working pressure by rules

160 lbs

Diameter at smallest part

6' 33/4"

Area supported by each stay

328 sq in

Working pressure by rules

174 lbs

Material of Front plates at bottom

Steel

Thickness

7/8"

Material of Lower back plate

Steel

Thickness

3/4"

Greatest pitch of stays

15"

Working pressure of plate by rules

163 lbs

163 lbs

163 lbs

Diameter of tubes

3 1/2"

Pitch of tubes

4 3/4" x 4 1/8"

Material of tube plates

Steel

Thickness: Front

13/16"

Back

13/16"

Mean pitch of stays

12 1/4"

Pitch across wide water spaces

15"

Working pressures by rules

190, 162 lbs

Girders to Chamber tops: Material

Steel

Depth and

thickness of girder at centre

8 3/4" x 21"

Length as per rule

36 5/8"

Working pressure by rules

177 lbs

Superheater or Steam chest; how connected to boiler

None

Can the superheater be shut off and the boiler worked

separately

Diameter

Length

Thickness of shell plates

Material

Description of longitudinal joint

Diam. of rivet

holes

Pitch of rivets

Working pressure of shell by rules

Diameter of flue

Material of flue plates

Thickness

End plates: Thickness

How stayed

Working pressure of end plates

Area of safety valves to superheater

Are they fitted with easing gear

Working pressure of end plates

Area of safety valves to superheater

Are they fitted with easing gear

13737920.

DONKEY BOILER—

Description

Made at _____ By whom made _____ When made _____ Where fixed _____
Working pressure _____ tested by hydraulic pressure to _____ No. of Certificate _____ Fire grate area _____ Description of safety valves _____
No. of safety valves _____ Area of each _____ Pressure to which they are adjusted _____ If fitted with easing gear _____ If steam from main boilers can enter the donkey boiler _____
Diameter of donkey boiler _____ Length _____ Material of shell plates _____ Thickness _____
Description of riveting long seams _____ Diameter of rivet holes _____ Whether punched or drilled _____ Pitch of rivets _____
Lap of plating _____ Per centage of strength of joint _____ Rivets _____ Thickness of shell crown plates _____ Radius of do. _____ No. of Stays to do. _____
Dia. of stays _____ Diameter of furnace Top _____ Bottom _____ Length of furnace _____ Thickness of furnace plates _____ Description of joint _____
Thickness of furnace crown plates _____ Stayed by _____ Working pressure of shell by rules _____
Working pressure of furnace by rules _____ Diameter of uptake _____ Thickness of uptake plates _____ Thickness of water tubes _____

SPARE GEAR. State the articles supplied :—

The foregoing is a correct description,

Thumair + Jackson Manufacturer.

General Remarks (State quality of workmanship, opinions as to class, &c.)

Certificate (if required) to be sent to

The amount of Entry Fee.	£	:	:	When applied for,
Special	£	:	:	18
Donkey Boiler Fee	£	:	:	When received,
Travelling Expenses (if any) £	:	:	:	18

Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Committee's Minute

Assigned

JUN 11 1895



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Foundation